

Glossary:

- **Alternate cover test** - A traditional measure of ocular alignment in which first one eye and then the other is occluded in rapid succession: the occluded eye is observed for movement when the cover is removed, and the unoccluded eye is observed for movement while the other eye is under cover. The alternate cover test will detect both heterophoria and heterotropia and is the only measure of heterophoria possible in the school setting.
- **Amblyopia** - An ocular condition in an otherwise healthy eye, in which there is an abnormality of cortical response in the occipital lobe of the brain due to insufficient or inadequate stimulation of the fovea, neural pathway, and cortex that may result in unilateral vision loss if untreated.
- **Astigmatism** - A refractive error of the eye in which, with accommodation suspended, the refracting power of the eye is not uniform in all directions such as that incoming rays of light in a single eye do not come together to focus at a single point, but rather are focused at two or more points that usually results in blurred or partially blurred vision.
- **Binocularity** - The characteristic of the eyes when binocular vision is intact. Used interchangeably with binocular vision and requires both ocular alignment and stereoacuity.
- **Color vision deficiency** - A diminution or lessening of one of the three pigments in the color-sensitive cones of the retina that usually results in difficulty with saturation and brightness of colors rather than color or hue.
- **Conjunctivitis** - An inflammation of the palpebral conjunctiva, the lining of the upper and lower eyelids, and occasionally the bulbar conjunctiva, the layer of the conjunctiva over the sclera.
- **Convergence/convergence reflex** - The result of action of the extraocular muscles turning the eyes inward or medially-nasally to focus on an object near at hand; together with accommodation, one of two essential components of near vision.
- **Denominator** - The number below the bar in the Sloan notation. The denominator indicates the smallest line on an acuity chart (near or distance) successfully read by an examinee, or the distance from the chart or focal object for successful reading of the optotypes by an individual with no refractive error.
- **Diplopia** - Double vision or the perception of two images, one by each fovea, experienced when the eyes are intentionally crossed or out of alignment due to imbalance of the extraocular muscles.

- **Distance vision** - The ability of the eye to see images clearly at a distance (often a great distance). The inability to see a distant object clearly is called myopia.
- **Esophoria** - A type of heterophoria in which the eye deviates inward or nasally when covered, that is, when fusion is suspended.
- **Esotropia** - A type of strabismus in which one or both eyes deviate inward toward the nose from a parallel axis of vision. Also called convergent strabismus.
- **Exophoria** - A type of heterophoria in which the eye deviates outward or laterally when covered, that is, when fusion is suspended.
- **Exotropia** - A type of strabismus in which one or both eyes deviate outward away from the nose from a parallel axis of vision. Also called divergent strabismus.
- **Fovea** - The area of the retina made up entirely of cones at the center of the macula, responsible for the very keenest vision.
- **Fusion** – The union of two single images, one from each eye, into a single three-dimensional image within the occipital cortex.
- **Heterophoria** - A latent alignment disorder in which the eyes are not parallel during monocular vision, that is, when only one eye is seeing and binocularity and fusion are disrupted. Also referred to as phoria.
- **Heterotropia** - A manifest alignment disorder, or strabismus, in which one or both eyes deviate from parallelism when attempting to focus on a target while both eyes are open. Also referred to as tropia.
- **Hypermetropia** - A refractive error in which the light rays from an incoming visual image have not converged by the time they reach the retina. Used interchangeably with the term hyperopia. (Formerly called “farsightedness,”)
- **Hyperopia** - A refractive error in which the light rays from an incoming visual image have not converged by the time they reach the retina. Used interchangeably with the term hypermetropia. (Formerly called “farsightedness,”)
- **Hypophoria** - A type of heterophoria in which the eye deviates downward, when covered, while fusion is suspended.
- **Hypotropia** - A type of strabismus in which one or both eyes deviate downward from a parallel axis of vision.
- **Legal blindness** - Best-corrected central vision of 20/200 or less, and peripheral vision of 20 degrees or less.
- **Myopia** - The most common of the refractive errors in which light rays from an incoming visual image converge before they reach the retina, or preretinally. (Formerly called “nearsightedness.”)

- **Near vision** - The ability of the human eye to see objects with clarity at close range, also termed near point acuity or near acuity. Optimal near vision requires both accommodation and convergence.
- **Numerator** - The number above the bar in the Sloan notation. The numerator indicates the distance the examinee is away from the chart.
- **Nystagmus** - An involuntary, jerky movement of one or both eyes suggestive of primary ocular or systemic disease.
- **Occluder** - An object that temporarily obstructs vision during vision screening or testing, preventing an eye from visualizing a focal target.
- **Ocular alignment** - A positioning of both eyes by the extraocular muscles so they are targeting the same focal object simultaneously with the result that two images, one from each eye, fall on the respective foveae. The eyes are said to be orthotropic or parallel.
- **Ocular motility** - The ability of the eyes to move together smoothly and fluidly, in all directions, at will.
- **Ocular tracking** - The movement of the eyes together, at will, following a target in any direction. Also termed tracking.
- **Optotype** - A focal image or target, very often letters or symbols on a chart, placed before the examinee's eyes and used to discern visual functioning.
- **Plus lens** - A convex lens used in the diagnosis and treatment of hyperopia, which refracts light when placed in front of the eye.
- **Pseudoisochromatic plates** - A test of color vision that is a saturation test and a measure of the purity of color, which works by detecting false perception of color.
- **Sensitivity** - The ability of a screening test to correctly identify those who actually have a disease, health problem, or condition.
- **Serif** – The short lines stemming from and at any angle to the upper and lower ends of a letter.
- **Sloan letters chart** - A vision acuity chart named after ophthalmologist, Dr. Louise Sloan, composed of ten letters of the Roman alphabet intentionally selected, placed, and ordered on the chart. Sloan letters are sans (without) serif and employ uniform fonts in all charts, and for this reason are now the preferred charts.
- **Snellen chart** - The most common and well known of the vision acuity charts, named after its nineteenth century developer, Dr. Hermann Snellen. A modern version presents nine letters of the Roman alphabet in a font with serifs. Many charts in use are erroneously called "Snellen charts." Snellen charts are no longer recommended because of the confusion with the discrimination of the serifs on the letters. (See Sloan chart)

- **Specificity** - The ability of a test to correctly identify all those who do not have a disease, health problem or condition.
- **Stereopsis** - Depth perception or three-dimensionality possible only when both eyes are in alignment and perceive the same image clearly.
- **Strabismus** - A manifest deviation of one or both eyes from the visual axis of the other so they are not simultaneously directed to the same object. Also referred to as heterotropia or tropia.
- **Visual acuity** - The state, condition, or effectiveness of central vision.